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# The Role of Somatic Psychotherapy in Treating First Responders: Providers' Perspectives

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# The Role of Somatic Psychotherapy in Treating First Responders: Providers' Perspectives

By,

Maggie Graham, B.S.

MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

## **Abstract.**

As part of their occupational responsibilities, first responders such as firefighters, law enforcement, paramedics, military medics and disaster relief workers are exposed to critical incidents and traumatic events on a routine basis. The dearth of literature on somatic-based interventions shows promise as a tool for addressing trauma, yet few, if any, studies address trauma among first responders specifically. This qualitative study explores somatic psychotherapy as a treatment of trauma within the first responder community. Participants for the study ( $n=6$ ) were recruited through snowball sampling and online recruitment. Semi-structured, in-person interviews were completed with six mental health providers who practice somatic, or body-based methods to explore their perspectives on its effects with first responder clients. Thematic analysis was used to code the qualitative data. Results showed that all providers who have engaged first responders in somatic-based interventions saw positive results in treating trauma. This supports previous studies researching somatic therapy as an intervention tool for trauma and implies that further research is needed with greater sample sizes and reliability models to bring broader recognition to this specialization of mental health.

*Keywords:* First responder, somatic psychotherapy, trauma, posttraumatic stress disorder

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# **The Role of Somatic Psychotherapy in Treating First Responders: Providers' Perspectives**

## **Introduction**

First responders, which may include police officers, paramedics, EMTs, firefighters, disaster relief and rescue workers, military medics, nurses and medical staff, and dispatchers are routinely exposed to potentially traumatic events, crises, and critical timeframes (Benedick et al., 2007). Routine exposure to potentially chronic and critical incident stressors increase first responders' risk of developing mental health related disorders such as posttraumatic stress disorder (PTSD), anxiety, depression, and substance abuse (Donnelly, 2012). In addition to increased risk for developing psychiatric disorders, there are subclinical emotional reactions that can erupt from first responder and disaster work such as fear, worry, sleep disturbance, compassion fatigue, vicarious trauma, and distress in interpersonal relationships (Benedick et al., 2007; Cates & Keim, 2016). The prevalence rates of PTSD, suicide, and occupational stress response is higher in first responder professions than that of the general population (Walker, McKune, Ferguson, Pyne, & Rattray, 2016).

Despite chronic occupational stress, high risks associated with certain professional duties, and the increased prevalence with which they are exposed to traumatic events, first responders may be hesitant to seek help (Brown, 2017). Stigma is one factor associated with lower rates of seeking help for mental health concerns (Royle, Farrell & Keenan, 2009). Additional factors that may reduce help seeking among first responders may also include discrimination, ignorance, prejudice, and job instability contributing to the stigmatization, as well as cultural norms within these communities (Royle et al., 2009). According to a study involving Connecticut police

officers, less than half of responders who reported mental health conditions ever accessed help due to reported concerns of confidentiality, potential negative career impact, and stigma being the most reported barriers, especially within agency employee assistance programs (EAPs) (Fox et al., 2014).

The prevalence of trauma exposure and mental health issues in first responder communities is reflected in the literature. According to Donnelly (2012), reported exposure to traumatic events among emergency response professionals was between 80% and 100%, rates of PTSD greater than 20%, and alcohol and drug use rates considered high risk were as high as 40%. A recent public opinion survey released by the University of Phoenix on first responder mental health found that 85% of first responders have experienced mental health related symptoms, 34% have received a mental health diagnosis, and 10% have been diagnosed with PTSD (University of Phoenix/Harris Poll, 2017). About half of first responders receive pre-exposure mental health training and post exposure psychological support through critical incident debriefings, yet there are still 49% that are not receiving this type of support, and more than two thirds of respondents including firefighters, police officers, paramedics and nurses in this survey mentioned that mental health services are rarely utilized (University of Phoenix/Harris Poll, 2017).

In addition to high prevalence of mental health concerns, suicide is a remarkable problem in first responder communities as well. According to Newland, Barber, Rose, and Young (2015), in a study involving more than 4,000 first responders, 6.6 % had attempted suicide, a rate 10 times higher than the general population. Research strongly suggests that firefighter suicides are related to PTSD, with rates increasing in recent years (Venteicher, 2017). There were 79 firefighter suicides reported in 2012, and 112 reported firefighter suicides in 2015, suggesting



there are perhaps more that were not reported (Heitman, 2016). Ali (2018), discusses the interpersonal psychology theory of suicide, which sheds light on potential reasons for these higher suicide rates in the firefighter community. The theoretical model discusses three core risk factors involved in predicting who is capable of suicide which are loneliness, liability and acquired capability (Ali, 2018). Due to the fact that firefighters are exposed to events that may threaten their lives or well-being repeatedly, it is possible they can acquire an elevated capability for suicide as continuous susceptibility to physical and emotional trauma can lower their fear of death (Ali, 2018).

When looking at the reasons for such high rates of mental health consequences, it is important to first understand the cultural context of first responders. Many emergency service agencies follow rigorous training regimes to prepare them for successfully executing missions, handling critical incidents, providing protection, and at times engaging in violent encounters (Freeman-Clevenger, Miller, Moore, & Freeman, 2015). These qualities and challenges put them at risk for physical and psychological injury. They must rely heavily on each other and themselves to do their jobs, and therefore, a strong sense of camaraderie or family usually exists within these organizations (Freeman-Clevenger et al., 2015). Clinicians who are knowledgeable and respect this culture are more likely to retain first responder clients and provide sensitive and appropriate interventions, as clients may be reluctant to work with non-first responders in a therapeutic setting due to feelings that they “wouldn’t understand what I’ve been through” (Kronenberg et al., 2008). Due to their selfless, stoic, and service-oriented nature it is common to find dismissal of their own struggles both physically and mentally. Collectively, this becomes symptomatic at the agency level to the point where paying proper attention to one’s mental

health may be regarded as weak, strange, or misunderstood by peers and upper management (Royle et al., 2009).

Efforts have been made to combat mental health stigma in first responder communities. Peer support has been emphasized as a direct means of assistance for fellow responders who are struggling with mental health issues, especially in fire department settings (DeGryse, 2015). The role of peer support groups in firefighting has expanded to include more formalized training, resources, and paid employees, such as with the New York Fire Department following the 9/11 attacks (DeGryse, 2015). Given the stigma associated with mental health, as discussed earlier, it is not surprising that first responders may choose to speak to another peer who has likely experienced similar feelings or events rather than a mental health professional (Morrison, 2016).

According to Fox and colleagues (2012), first responders who do not receive treatment for mental health problems can negatively impact their productivity at the workplace. In a study involving 150 police officers, it was shown that officers with an untreated mental health condition, reporting difficulty interacting with others, time management and completing tasks resulted in a 5.9% productivity loss, which cost the department \$4,489 per officer (Fox et al., 2012). The statistics in the previous paragraphs inform us about the plight of this community related to the recurrent trauma they experience and brings awareness to potential gaps in treatment and societal norms that do not serve them.

Greater efforts have been made to address the unique culture and mental health needs of the first responder population internationally. In Australia, for example, a group of physicians and mental health providers developed a guide in 2015 to address specific considerations for first responders with PTSD, indicating treatments such as trauma-focused cognitive behavioral therapy (CBT), eye movement desensitization and reprocessing (EMDR), and pharmacology as

useful interventions for PTSD (Harvey et al., 2015). The National Center for PTSD recognizes eye movement desensitization and reprocessing (EMDR), cognitive processing therapy (CPT), and prolonged exposure (PE) therapy as the most researched evidence-based practices for treating PTSD in the United States (U.S. Department of Veterans Affairs [VA], 2017). Further research on these evidence-based practices, however, indicates substantial dropout rates and suggests these treatments show more positive results with a selective range of patients and clinicians, as well as in randomized-controlled studies (Najavits, 2015). Nationally, organizations such as the Code Green Campaign offer trainings in recognizing mental health problems specific to the first responders that emergency service agencies can choose to utilize, as well as hosting a storytelling project to allow responders to anonymously publish their struggles to help others going through similar experiences (Thacker, 2016).

While peer support groups and inter-departmental trainings, EMDR, cognitive processing therapy (CPT), cognitive behavioral therapy (CBT), prolonged exposure therapy (PE) and pharmacology may be helpful treatments for many who suffer trauma-based disorders, looking at other interventions that have not been widely explored in research or literature may have appeal to the large percentage of individuals in these professions that are not seeking help for mental health issues or have previously dropped out of the aforementioned therapy programs (U.S. Department of Veterans Affairs [VA], 2017; Harvey et al., 2015; Najavits, 2015). One such intervention is that of somatic psychotherapy. Somatic psychotherapy (or somatic-based therapy, body-based therapy) is a holistic intervention that employs the relationship between the mind and the body to help heal psychological traumas and other mental health diseases (Khan, 2016). This term embodies many forms of more specific modalities, such as somatic experiencing, sensorimotor psychotherapy, and brainspotting (Grand, 2013; Levine, 1997; Ogden, 2015).

Trauma is regarded by somatic practitioners as an event that occurs in the whole body, therefore, addressing the physiological component of psychological distress as well as the cognitive component is essential in the therapeutic process (Khan, 2016). Trauma experts believe that our bodies can reflect our past traumas through our posture and body language as well as in physical manifestations of various natures such as chronic pain, digestive problems, or immune dysfunction (Khan, 2016). Somatic therapy integrates mind and body by looking at how the autonomic nervous system (ANS), which is the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heartbeat, and digestive processes, reflects traumas from the past through instability, and helps traumatized clients regain mastery through difficult experiences by regulating their nervous systems (Van der Kolk, 2014).

Addressing trauma through somatic interventions such as somatic experiencing, sensorimotor psychotherapy, yoga, EMDR, and several other mind-body practices are showing success (Van der Kolk, 2014; Whiting, 2013). Both somatic experiencing and sensorimotor psychotherapy are newer practices relative to ancient forms of mind-body therapies such as yoga and are the primary modalities of focus in this study. Somatic experiencing is a body-oriented therapy that seeks to heal trauma and other stress-related disorders by helping clients release survival energy that is stuck in the body, and also to tolerate difficult emotions and bodily sensations through greater body awareness and touch (Levine, 2010). Sensorimotor psychotherapy is a method of somatic therapy that integrates cognitive and emotional processing with motor related responses to sensory input in order to address trauma (Ogden & Minton, 2000). Somatic experiencing and sensorimotor psychotherapy are similar in that they both use the body as an initial entry point for unfolding trauma, but differ in that sensorimotor

psychotherapy follows that physical, cognitive and emotional processing are all necessary to work through trauma, whereas somatic experiencing really focuses on tracking the physical sensations of the body as a keystone to recovery (Ogden & Minton, 2000).

While the existing research on somatic psychotherapy reports promising results as an effective trauma therapy, there is a need for further studies to support this notion. There were few, if any, studies whose findings supported how somatic therapy explicitly worked with the first responder community. This study seeks to bridge this gap of information, and learn if somatic psychotherapy may be a sound intervention in treating the many first responders that routinely face traumatizing events and have not yet found other interventions to process their distress to be helpful, if they have sought any help at all. Thus, this study seeks to further examine the potential of somatic therapy to serve as a resiliency tool for first responders who are often subjected to trauma. It also explores any findings on the role that somatic therapy plays in reducing stigma, and ultimately, increasing help-seeking in these communities. This research will look at somatic-based interventions used to treat trauma and chronic stress symptoms, utilizing a qualitative research approach to interview practitioners who practice a form of somatic therapy, and work with the first responder community.

## Literature Review

There is ample literature which focuses on trauma and its effects, as well as many studies looking at how trauma impacts the first responder community, and fewer studies found on somatic psychotherapies as interventions for trauma. The literature reviewed for this study is organized around three core themes: (1) the prevalence of PTSD and other trauma related disorders in first responder culture; (2) interventions supporting treatment of PTSD and occupational stress; and (3) the neuroscience behind trauma and the role somatic psychotherapy plays in treating mental illnesses and building resiliency in this culture. Key terms and definitions embedded within these concepts include: first responder culture, posttraumatic stress disorder, occupational stress, neuroscience and polyvagal theory, somatic therapy, somatic experiencing, and sensorimotor psychotherapy.

### Definitions and Context

**First responder culture.** The term culture may have several definitions, however, in a social work context it may be given as, “Culture is the integrated pattern of human behavior that includes thoughts, behaviors, communications, actions, customs, beliefs, values, and institutions of a racial, ethnic, religious, or social group” (NASW, 2014, Cultural Competence section, para. 2). The term *first responder* is used to reference an individual whose primary professional duty is to be among the first to arrive and provide necessary assistance at an emergency (Benedek et al., 2007). First responder culture is deeply-rooted in its values, goals and attitudes, which subsequently affect their lives outside of their occupational role (Rubin, Weiss, & Coll, 2013). Antonellis (2005) framed common personality traits found in firefighters as team-oriented individuals who are risk takers and thrill seekers, detail-oriented with perfectionist tendencies,

and mission driven. For many “their job is not what they do, it often defines them...like a calling” (Antonellis, 2005, p.2).

**Police culture.** Police culture departs from firefighter and rescue cultures somewhat in that there is more independent work, and the key difference is that they are enforcers and carry a firearm (Freeman-Clevenger, Miller, Moore, & Freeman, 2015). A study released earlier this year showed that 84% of police officers worry about their safety as well as 32% of male officers and 22% female officers have had physical confrontation in a given month (Morin et al., 2017). Freeman-Clevenger (2015), in sketching the character of a police officer, states that “he, of all men, is once the most needed and most unwanted. He must be first to an accident and infallible in his diagnosis...A policeman must know everything and not tell” (p. 12). This description supports police culture values of self-reliance and stoicism (Fox et al., 2012). The common thread connecting agency cultures is unity, risk, dedication, and unflappability. While these attributes may be necessary to succeed in these occupational environments, they can also propagate mental health issues that arise from the chronic and acute stressors of the job (Royle et al., 2009).

### **Effects of chronic and critical incident stress**

Prior to looking at the literature associated with how first responders are affected by the unique stress they encounter in their professions, it is important to define the key terms *chronic stress*, *critical incident stress*, *posttraumatic stress disorder (PTSD)*, and *complex PTSD*.

**Chronic stress.** *Chronic stress* can be defined as “relatively enduring problems, conflicts and threats that many people face in their daily lives.” (Donnelly, 2012, p.76). Factors such as conflict with coworkers or supervisors, lack of support during conflict, and low salaries have

been reported as chronic stressors by EMS workers (Donnelly, 2012). Unique factors such as mass disasters like Hurricane Katrina can become situations of chronic stress for first responders as well if they are assisting for longer periods of time (Kronenberg et al, 2008).

**Critical incident stress.** According to Donnelly (2012), *critical incident stress* is defined as “any situation faced by emergency services personnel that causes them to experience unusually strong emotional reactions which have the potential to interfere with their ability to function either at the scene or later (p.76)”. Both chronic work stress and critical incident exposure are components of a first responder’s profession that has been linked to burnout, compromised health, fatigue and PTSD (Donnelly, 2012).

**Posttraumatic stress disorder (PTSD).** The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM–5; American Psychiatric Association, 2013) characterizes posttraumatic stress disorder by symptomology persisting longer than one month that develops following a traumatic event or series of traumatic events, usually where a person is exposed to death or threatened death, actual or threatened injury, or actual or threatened sexual violence either by direct exposure, witnessing the event(s), or indirect trauma from professional duties (ie. first responders). Indicators after one month might include hyper-arousal, intrusive thoughts, flashbacks, avoidance behaviors and dissociation (American Psychiatric Association, 2013). As noted earlier, the literature on first responders reveals significant rates of PTSD due to repeated exposure of traumatic events, critical incident stress and chronic stress on the job (Antonellis, 2005; Donnelly, 2012; Walker et al., 2016).

**Complex post-traumatic stress disorder (C-PTSD).** Also referred to as disorders of extreme stress not otherwise specified (DESNOS), complex PTSD is not recognized in the *DSM-5* but is often discussed in literature as the stress effects from prolonged, repeated, and often



severe trauma that usually begins early in life and has an interpersonal component associated with it (Briere, 2006). This form of PTSD has been used to describe and diagnose the effects of chronic trauma from the repeated death and trauma that first responders and combat veterans encounter (Engel, 2017). Komarovskaya and colleagues (2014) look at how first responders who experience early physical victimization in childhood are risk for developing post traumatic stress symptoms that could potentially be considered complex PTSD.

**Context of stress impacts on first responders.** The literature regarding mental health aspects of first responder communities discuss the high rates of PTSD and suicide within them (Donnelly, 2012). According to Donnelly (2012), chronic work stress coupled with critical incident stress and the factors associated with it (e.g., burnout, fatigue, physical injury, vicarious trauma) leaves the first responder susceptible to developing PTSD. In this study, rates of PTSD and alcohol and drug use among emergency medical technicians (EMTs) were examined, with results showing that greater than 20% of first responders met the criteria for PTSD, and as many as 40% had high-risk alcohol and drug use rates (Donnelly, 2012). While these rates are significant, the study did not include other negative impacts that have been documented from traumatic stress such as memory problems, indecision, disorientation, interpersonal conflict, depression, and suicide (Antonellis, 2005). Unique to first responder and military occupations, exposure to traumatic events can be routine and chronic, accounting for 32% of lifetime prevalence of PTSD in first responders compared to 6-14% in the general population (Walker et al. 2016).

Much of the literature reviewed touches on many of the aforementioned effects of traumatic stress among first responders but does not mention the somatic symptoms that may show up with PTSD (Gupta, 2013). These are physical symptoms or syndromes that often

cannot be explained by medical physicians, and may show up as chronic pain, tinnitus, dizziness, fibromyalgia, hypertension, immune disorders, and many other diseases and ailments (Gupta, 2013). It is curious to note that there is little regard to the physical or somatic component involved in the criteria for PTSD in the *DSM-5*. In the first paragraph of diagnostic features, there is a summary of the pertinent features proceeding one or multiple traumatic events, including re-experiencing, negative thoughts, distressing emotional and behavioral symptoms, arousal, dissociation, and reactive-externalizing (American Psychiatric Association [APA], 2013). It briefly mentions that individuals may have triggers symbolizing a traumatic event that could involve a physical sensation, especially if they have “highly somatic presentations” (APA, 2013; p. 275).

The prevalence of somatic symptoms resulting from posttraumatic stress disorder have been studied outside of the first responder population specifically. Gupta (2013) describes a milieu of physical symptoms that can result from PTSD, which in some cases can be classified as a somatoform disorder, or can affect any organ system in the body, and most predominantly including problems with cardiovascular, respiratory, musculoskeletal, neurological, and gastrointestinal systems, diabetes, chronic pain, sleep disorders and other immune-mediated disorders. Additionally, Gupta (2013) indicated that PTSD is associated with limbic instabilities, hypothalamic and adrenal alterations that results not only affects immune and sleep function but also is responsible for autonomic nervous system dysregulation. In a study specific to firefighters, those with PTSD reported greater levels of somatic symptoms regardless of age including gastrointestinal, cardiovascular and neurological problems compared to firefighters who do not have PTSD, suggesting that PTSD is associated with somatic symptoms (Milligan-Saville et al., 2017). Given the rapidly growing knowledge base of how trauma affects the body,

stronger integration of somatic symptoms and subsequently inclusion of recommendations for somatic therapies in treatment plans may result.

**Incidence and predictors of PTSD.** With regard to the fire service, it is difficult to determine just how likely a firefighter will experience a stress-related injury, as many do not report these problems due to fear of negative regard by peers and supervisors, and compromised opportunity for promotion (Antonellis, 2005). Predictors of PTSD is an important element to consider, as the majority of individuals exposed to repeated trauma do not experience PTSD, suggesting there are likely other factors influencing symptoms (Gates et al., 2012). The study looked at risk factors for PTSD in veterans and military personnel, such as age of first trauma or frequent prior trauma, trauma characteristics, and post-trauma factors such as lack of social support or exposure to additional life stressors (Gates et al., 2012). The results showed a weak to moderate association with pre-trauma factors contributing to PTSD, yet there was a strong association with perceived life threat, combat injury, and post-trauma factors including lack of social support and other life stressors in the development of PTSD symptoms (Gates et al., 2012).

Congruently, Kleim and Westphal (2011) examined predictors of adverse mental health consequences in first responders and found similar results to Gates' (2012) findings with the military population. For example, sustaining an injury or other experiences during a traumatic event was the strongest risk factor for PTSD with rescue workers involved in the World Trade Center recovery efforts after 9/11 (Kleim & Westphal, 2011). The study also found that younger and single responders showed higher rates of PTSD symptoms after a critical incident, and police officers with less critical incident stress and less previous trauma exposure was associated with lower rates of PTSD (Kleim & Westphal, 2011). It is interesting to note that results from the

firefighter population differed from police officers in that prominent risk factors for PTSD did include previous psychiatric histories (Kleim & Westphal, 2011). The data from the previous studies reviewed may suggest that complex PTSD, or DESNOS, is an important piece to consider in fully understanding how trauma shows up in first responders, and how to best treat them.

Suicidality is another key factor to address in regards to stress reactions among first responders. Newland (2015) found that in a sample of 4,022 responses from EMS responders, 86% reported suffering from critical stress, 37% had contemplated suicide and 6.6% had actually attempted suicide. The incidence of critical stress for emergency personnel is 10 times higher than the rate of the general population, yet 40% of respondents did not seek help for their distress due to fear of criticism from coworkers, losing their jobs, or being ridiculed (Newland et al., 2015). In 2016, it was reported to the Firefighter Behavioral Health Alliance (FBHA) that 132 first responders had committed suicide across the country (Venteicher, 2017).

When discussing the prevalence of mental health issues in first responders, acknowledging their stoic culture and strong presence of stigma toward mental health is crucial in understanding how to better serve them. Sharp et al. (2015) described three types of stigma, including *public* or *enacted stigma*, *anticipated stigma* and *self-stigma*. *Public stigma* develops at the interpersonal or sociocultural level. Those with *anticipated stigma*, believed they would be treated in a discriminating way if their mental health issues are known, and often also carry *self-stigma*, which reflects how an individual internalizes sustained societal beliefs about mental health and often leads to feelings of shame, inadequacy or low self-esteem. All forms of stigma can act as obstacles to seeking help, however, self-stigma may be the most damaging as a loss of self-esteem may pre-empt the individual, or in this case, the first responder from feeling worthy

of receiving necessary help for mental illness (Royle et al., 2009; Sharp et al., 2015). In much of the research that was reviewed relating to prevalence of mental illness in first responders discuss stigma as a key barrier to seeking help (Fox et al., 2012; Kronenberg et al., 2008; Newland et al., 2015; Royle et al., 2009,) emphasizing the need to explore ways to combat stigmatization of mental health in these communities.

It is possible to shift stigma at the individual level using a form of somatic therapy according to Royle and colleagues (2009), who highlight a case study that used eye movement desensitization and reprocessing (EMDR) to treat a police officer reluctant to seek help for PTSD after responding to a violent murder of a child due to his own self-stigma. However, after suffering from his symptoms and low productivity at work he engaged in EMDR treatments, which drastically changed his perception toward mental health and the need for responders to reach out and seek help for their mental health issues (Royle et al., 2009). While further research is needed to determine the efficacy of EMDR as an intervention tool for combatting stigma, it is an interesting notion to explore. EMDR is considered by some to fall under the somatic psychology umbrella (Whiting, 2013), along with other modern techniques such as yoga, tai chi, the Alexander technique, the Feldenkrais method, and Somatic Experiencing (Levine, 2015). The following paragraphs further explore somatic therapies and their role in addressing problematic reactions from trauma.

**Current Evidence-based practices for Trauma.** As mentioned earlier, the most researched evidence-based treatments for PTSD are cognitive processing therapy (CPT), prolonged exposure therapy (PE) and EMDR. CPT is typically a 12 session treatment that focuses on identifying and correcting false beliefs through cognitive restructuring techniques and to build a sense of safety, trust, self-esteem and intimacy (O'Reilly, 2012). PE is a treatment

comprised of 10 sessions which focuses desensitization to trauma memories through in-vivo and imaginal exposure (O'Reilly, 2012).

Efficacy studies have shown both of these manualized treatments to be successful for clients who finish these programs (Ragsdale & Horrell, 2016; Rutt, Oehlert, Krieschok, & Lichtenberg, 2017). According to Rutt et al. (2017), in a study involving 750 veterans to look at the efficacy of prolonged exposure (PE) and cognitive processing therapy (CPT), showed that both programs were equally effective at reducing PTSD scores. Veterans that completed therapy reported significantly greater reduction in symptoms from those who did not complete therapy, with a call for further research regarding drop-out rates noted by the author (Rutt et al., 2017). Najavits (2015) further discusses the problem of significant drop-out rates from PE and CPT treatments, which was attributed to substance use, higher severity of symptoms, stigma, distrust in the provider, lack of time, and in some cases diagnoses other than that of PTSD.

In his research, Van der Kolk has suggested that cognitive-based treatments for trauma are not optimal because “trauma has nothing to do with cognition, it has to do with your body being reset to interpret the world as a dangerous place...desensitization is not healing” (Interlandi, 2014, para. 12). He has noted that trauma involves the most primitive of our brain structures that cognitive therapy cannot access and a traumatized individual cannot talk themselves out of (Interlandi, 2014). This suggests there may be alternative options for trauma therapy that may better serve those who do not respond to evidence-based treatments as well, such as with somatic psychotherapy.

## **Somatic Interventions for Trauma.**

**Trauma Defined.** While the definition of trauma is broad, and can be physical or psychological, and refer to the event or injury itself or the effects from it, the scope of this paper will focus on psychological trauma. The *DSM-5* (American Psychiatric Association, 2013) defines trauma as:

Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: directly experiencing the traumatic event(s); witnessing, in person, the traumatic event(s) as it occurred to others; learning that the traumatic event(s) occurred to a close family member or close friend (in case of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental); or experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (p. 271).

This definition does account for vicarious trauma but excludes that an event does not require elements of death, injury or sexual violence to be traumatic, as Briere (2006) points out. Peter Levine (2010), trauma expert and developer of the somatic experiencing (SE) method, builds upon this definition from a physiological standpoint, honing in on the concept of immobility, and that trauma arises from unresolved states of human immobility that are coupled with intense emotions such as fear, revulsion or dread (p.67). Three modern disciplines of psychology including neuroscience, developmental psychopathology, and interpersonal neurobiology have led to a wealth of knowledge surrounding trauma, abuse and neglect. Research from these branches has shown that trauma creates physiological changes, and the emotional pain is stored in the body long after an adverse event and becomes problematic if an individual is constantly perceiving danger or threat afterward (Van der Kolk, 2014). According

to Van der Kolk (2014), it is an evolutionary asset to log traumatic memories to help prevent revisiting the same danger, and when properly acknowledged trauma can be more about resiliency but it becomes problematic when an individual has constant signals of danger. In the case of first responders, they are not able to employ natural instincts when they encounter critical situations, but rather are expected to suppress them and keep their cognitive functioning ‘online’ without loss of control in order to help victims in crisis (Royle et al., 2009). Levine (2010) would argue that this inability to let the body do what it wants or needs to do in a crisis is what leads to chronic trauma symptoms in an individual.

**Polyvagal theory and interventions for trauma and PTSD.** Traditionally, psychotherapy for trauma and PTSD has involved cognitive based methods without considering its physiology, as trauma dramatically affects the physical being and many traumatized people have somatically based symptoms (Ogden et al., 2000). This is because an individual is activating their “fight or flight” response using their autonomic nervous system (ANS) to react to the traumatic event or threat, which affects all of their organs, however, for many traumatized individuals, completion of one of these responses is unable to occur and therefore often affects the cognitive processing of the event which can manifest in PTSD symptoms (Ogden et al., 2000). These concepts are supported by the polyvagal theory, which describes the evolution of the human nervous system and how it receives and processes trauma through three main responses – social engagement, fleeing, or freezing (Porges, 2001). This is where somatic-based therapies such as sensorimotor psychotherapy, somatic experiencing, and yoga act on releasing such trauma through interoceptive awareness, sensorimotor self-regulation of arousal, or breathing patterns, for example (Levine, 2015; Ogden et al., 2000).



**Somatic experiencing.** Somatic experts, such as Bessel Van der Kolk, Peter Levine, and Pat Ogden have been pioneers in bridging gaps in the treatment of psychological trauma. Somatic experiencing (SE) was developed by Peter Levine as a therapeutic intervention that focuses on the primary role that the body plays in trauma and creating an acute awareness of internal physical sensations, rather than the cognitive component (Levine, 2010). According to Levine (2010), talking cures do not go deep enough into the solution because the mental piece is secondary to what the body initiates during a traumatic event. He asserts that trauma cannot be diminished by the diagnostic criteria in the *DSM-5* as a PTSD diagnosis and does not regard trauma as a disease or disorder, but rather an experience rooted in survival instincts (Levine, 2010). This perspective on trauma speaks well to military and first responder communities who struggle with mental health labels and value survival instincts.

Though there is little scientific research completed on the effectiveness of somatic experiencing, the few studies that were found and reviewed showed promising results. Leitch (2007) looked at how survivors from the 2004 tsunami that devastated regions of Indonesia, India, Sri Lanka, and Thailand responded to trauma intervention in the modality of somatic experiencing one month after the event occurred. There were 53 survivors who participated and were assessed for their level of activation and arousal, pretreatment, immediately posttreatment, five days posttreatment, and after one-year (Leitch 2007). The results of this study showed that 67% of participants reported an improvement in symptoms with 95% showing complete or partial improvement in observed symptoms, and after one year following, these percentages were 90%, and 96%, respectively (Leitch, 2007).

A similar study by Parker, Doctor and Selvam (2008), studied the outcome of somatically based therapy on 150 victims in Southern India who survived the same tsunami as in the

aforementioned study. The participants were evaluated for emotional and bodily stress reactions which closely matched the *DSM-4* (2004) checklist for PTSD and received a modified form of somatic experiencing therapy due to cultural limitations and time constraints of the study (Parker et al., 2008). Results showed significant effects at the time of intervention as well as four- week and eight-month follow-up assessments, during which 90% of participants reported remarkable improvement of their symptoms, suggesting that these preliminary data indicate potential for somatic experiencing as a promising treatment for trauma affected individuals (Parker et al., 2008). Earlier this year, the first study was published on somatic experiencing in a randomized controlled setting to look at its effectiveness in treating PTSD (Brom et al., 2017). The study was conducted in Israel, included 63 participants with various trauma histories, and used linear mixed modeling to measure the effect of somatic experiencing technique used to treat them (Brom et al., 2017). The results showed that up to 60% of participants experienced a reduction in trauma symptoms, and 44% had a reversal of a PTSD diagnosis after treatment, which was considered a moderate effect, however, it is mentioned that the study was conducted during political unrest and war in the area which could have muted the impact of this intervention (Brom et al., 2017).

The research studies discussed in the literature review are not specific to first responder populations, however, the events that prompted the studies – tsunami, earthquake, and combat exposure are traumatic events that hold some of the similar qualities that first responders will encounter such as natural disaster, injury, and death (Kronenberg et al., 2008). While further research is needed that looks at the effects of somatic therapy on first responders specifically to draw conclusive statements, it is possible that similar results might be found.

The primary limitation in all of these studies were their small sample sizes. Also, this modality lacks a uniform protocol that approaches clients individually based on their unique

needs and responses (Brom et al, 2017). These three studies use a quantitative methodology, which differs from the qualitative approach being used for this study using semi-structured interviews with providers. Perhaps this study can help bridge the gap in further understanding the more nuanced and less concrete ways that somatic psychotherapy can impact clients.

**Sensorimotor psychotherapy.** Sensorimotor psychotherapy (SP) is another somatic intervention developed by Pat Ogden, that treats trauma by integrating sensorimotor processing with cognitive and emotional processing (Ogden & Minton, 2000). Specifically, it helps resolve issues of unresolved trauma somatically, which then facilitates the cognitive and emotional component to make meaning of the trauma as well (Fisher, Ogden & Pain, 2006). Sensorimotor psychotherapy is similar to somatic experiencing (SE) in how it tracks physical sensations as a bottom-up processing approach, however, differs from SE is in its intention (Ogden and Minton, 2000). SE focuses on tracking physical sensation and discharging trauma through the body alone, and sensorimotor processing seeks to connect the somatic sensations to process the emotional and cognitive aspects of trauma (Ogden & Minton, 2000). Also, Levine does not promote reexperiencing trauma with his clients during somatic experiencing unless it comes up organically, as it can continue to dysregulate the nervous system, whereas sensorimotor psychotherapy may ask clients to engage in reexperiencing under a safe and controlled setting (Fisher et al., 2006; Levine, 2010). These differences offer a glimpse of the variety and flexible nature of somatic interventions.

There are few, if any, specific studies that have been conducted involving this modality with the first responder population, however, studies completed with women who have histories of childhood abuse and within women sexual health clinics have shown positive responsiveness

to sensorimotor psychotherapy treatment (Langmuir, Kirsh, & Classen, 2012; Mize & Iantaffi, 2012).

What can be drawn from trauma experts and current literature, is that there is an emerging science in trauma intervention involving using the body to heal. However, at present there are no documented studies on how this form of intervention can be effective in treating the first responder population who faces chronic trauma and occupational stress. Resiliency and strengths are two approaches that clinicians found first responders favored over traditional talk therapy in a study looking at how first responders who received mental health support after Hurricane Katrina responded to clinicians (Kronenberg et al., 2008). Resiliency is key when speaking about this community, as it connotes strength and health rather than weakness and illness. Somatic psychotherapy serves this idea, as it focuses on building resiliency through self-awareness and self-regulation (Levine, 2015).

## Conceptual Framework

Modern attachment theory and polyvagal theory are two of the theoretical frameworks that inspire the practice models of somatic-based modalities for trauma interventions and are the theoretical lenses that guide my analysis and contexts for this study (Porges, 2001; Schore & Schore, 2008).

**Modern attachment theory.** Modern attachment theory, or regulation theory, is the concept of Bowlby's attachment theory expanded to a more clinically suitable model for what we know about development and attachment mechanisms today, looking at all the elements involved in affect and self-regulation (Schore & Schore, 2008). There has been a shift from looking at the psychological and biological integration of human development, to studying affect regulation within the body and interactively (Schore & Schore, 2008). This shift has created more focus on neuroscience, which has played a pivotal role in reforming the traditional attachment theory into a discussion of how the development of right brain neurobiological systems are the gatekeepers to emotional processing, stress modulation, and self-regulation. It is the agent for the mind-body connection (Schore & Schore, 2008). One of the outcomes from this paradigm shift is sprouting research on neurobiological changes in the brain due to traumatic events and has abetted the argument for materializing trauma-informed care or approaching traumatized individuals with an understanding of how trauma affects the whole body and mind (Evans & Coccoma, 2014). This is relevant to somatic work in that somatic psychotherapy works to help clients of trauma learn how to move into a state of regulation from dysregulation more quickly, and respond appropriately to everyday situations (Scaer, 2005).

**Polyvagal theory.** The polyvagal theory links the evolution of the autonomic nervous system (ANS) to affective experience, emotional expression, facial gestures, vocal

communication and contingent social behavior (Porges, 2001). The autonomic nervous system ANS is comprised of two branches: the sympathetic nervous system (SNS), which employs arousal and the fight-or-flight response, moving blood to the muscles for quick action, and the parasympathetic nervous system (PNS), which promotes restorative mechanisms such as digestion, healing, and a lower heart rate (Van der Kolk, 2014). The term *polyvagal* refers to the several branches of the vagus nerve, that connects many major organs such as the brain, heart, lungs and stomach (Van der Kolk, 2014). The functions of the vagus nerve also explains the three core responses to threat in humans, being that of social engagement or help with a dangerous situation, fleeing from threat or danger, and lastly to become immobile or freeze. The first response of social engagement is activated by the ventral vagal complex (VVC), which employ our communication by activating the muscles in the face, ear, and larynx. When this fails, the sympathetic nervous system will ignite the fight or flight response. If this response fails, the dorsal vagal complex (DVC) activates a drastic shutdown of organs, where digestion ceases, heart rate plummets and collapse or freezing ensues (Porges, 2001). This theory provides an explanation of stress-related responses and a plausible explanation of social, emotional and communication behaviors and disorders when people are inhibited by physiological states (Porges, 2001). The important piece of this framework is that it informs how attunement and prosocial relationships can help pull individuals out of a traumatized state, as we developed our social engagement as a first-tier response.

**Personal lens.** My personal interest in pursuing this topic stems from a few different origins. For one, I have a personal investment in learning about and applying the principles of body-based interventions to healing trauma and chronic pain from my own journeys in life. My path has developed a sense of compassion and desire to understand others who endure the

complexities of ongoing trauma, or adverse reactions in their lives. Further, I have a curiosity about the first responder and military populations who risk their lives for others, often at the expense of their own mental and physical well-being. After spending time in fire stations for almost a year, I gained insight into their innately heroic nature, stoic culture, and veiled need to tell their own story.

## **Method**

### **Research Design**

The research for this study was qualitative and exploratory in nature. Its purpose was to explore the use of somatic therapy as an intervention for first responders, and gain insight on the perception of this treatment. I conducted interviews with mental health providers who both specialize in somatic therapy and treat first responders to examine their views on the impact of this type of therapy. A qualitative design was selected for this interview for two reasons. For one, the literature reviewed showed an absence of qualitative studies on somatic interventions for first responder populations. Second, given the nature of somatic therapy, and its flexibility in technique and results, semi-structured interviews were beneficial in receiving an unabridged response from the experiences of practitioners. It was decided to interview practitioners rather than recipients of somatic psychotherapy to get a professional perspective of outcomes from multiple clients.

### **Participants and protection of human subjects**

For this study, I recruited participants through email invitations, using convenience and snowball sampling methods (Monette, Sullivan, DeJong & Hilton, 2014). Six participants were selected for interviews who were licensed mental health providers certified in practicing a form of somatic psychotherapy, and a level of experience working with first responders, meeting the criteria for this study. The protection of all participants was ensured through approval by the University of St. Thomas Institutional Review Board (IRB). Participants received an informed consent which followed the guidelines required by the Office for Human Resource Protections (OHRP) via email prior to conducting interviews, which were then reviewed in-person before



starting the interview. Participants in this research study received background information on the focus of the research, a description of the interview process and research design, benefits and risks involved in participating, assurance of the voluntary nature of participation, and protection of confidentiality. Information given by participants during the interviews were recorded both through written field notes and the use of a digital voice recorder. Participants selected the time and place of the interview, which lasted up to one hour in duration. All field notes and recordings were kept in a locked file and will remain secured for three years following the study.

## **Measures**

The instrument used to collect data for this study was a semi-structured interview guide consisting of 16 questions. The instrument was developed around seeking answers to the research question of getting providers' views on somatic therapy. The 16 questions centered around the profile of the participant and why they selected the modality they practice, how first responders are impacted by somatic psychotherapy and whether they stand apart or align with other client demographic responses to treatment, and how participants measure or assess growth in their clients. All questions allowed time for participants to expand on their personal thoughts or experiences with their practice to help illustrate patterns they have noticed in their work with trauma and motivations for continued practice.

## **Data Analysis**

The responses collected from the interviews were analyzed through open and focused coding to reduce and simplify themes in the data by categorizing concepts from the raw data (Monette et al., 2014). This study did not have a pre-established coding scheme, but rather, developed categories after the responses were recorded and transcribed from participants. I

began with open coding in the first round of analyzing the raw data, and then performed a second round of thematic analysis to explore recurring concepts and relationships that emerged from the generalized coding categories. Afterward, reflection through theoretical memos was completed to bridge the data into generalizing information (Monette et al., 2014). In considering validity, reliability and trustworthiness with this research, one approach taken was looking at face validity which assesses “whether a logical relationship exists between the variable and the proposed measure” (Monette et al., 2014, p.14). The relationship that existed between the variable and the proposed measure was viewed as appropriate that licensed mental health providers who practice somatic therapy regularly have a practical sense of how to interpret this work in their clients. Trustworthiness entered in under the requirement that participants are licensed providers who have agreed to uphold ethical values of their practice. The reliability of this measure, which looks at the ability for this study to yield consistent results is reliable in the sense that each participant discussed their perspectives based on experiences they’ve already had with clients, yet there is fluidity in how future experiences may shift their ideas and perceptions from the time of this study (Monette et al., 2014).

## **Results**

For this study, participants ( $n=6$ ) were interviewed in a semi-structured format with a list of questions as well as room for extrapolation. The goal of the interviews was to answer the research question of what provider's views are on how somatic psychotherapy impacts the first responder community. From the qualitative data collected in the interviews, five core themes emerged from the data and are detailed in the following paragraphs, including subthemes. The core themes are as follows: trauma lives in the body, developmental trauma is common in first responders, stigma is a primary barrier to seeking help in the first responder community, the outcomes from somatic psychotherapy are predominantly positive, and meaningful ways to research this form of therapy is needed to support its outcomes.

### **Participant profile**

All participants had extensive experience working with trauma, mostly complex developmental trauma as well as acute, chronic and vicarious forms of trauma. The years of experience using somatic forms of psychotherapy ranged from 6 to 20 years. The most utilized somatic-based methods among participants were somatic experiencing and sensorimotor psychotherapy. Other modalities recorded include somatic touch therapy, eye movement desensitization and reprocessing (EMDR), brainspotting, comprehensive resource modeling (CRM), movement analysis, and dance movement therapy.

Of the six participants, ( $n=5$ ) have direct experience working with first responders as clients, but one of those providers only met once with a first responder client and could primarily speak to the barriers for treatment in this population. Of the other providers with direct practical experience with first responders ( $n=4$ ), one participant works almost primarily with first responders, using somatic touch and somatic experiencing as first tier interventions with them.

Another participant integrates sensorimotor psychotherapy, brainspotting and comprehensive resource modeling (CRM) with first responder clients, and other two participants primarily utilize somatic experiencing with first responder clients.

The modalities that can involve direct touch by the practitioner are somatic experiencing, somatic touch and sensorimotor psychotherapy. The other models are somatic in nature but do not involve the client being touched. This is relevant because participants reported having to find other methods to work with client trauma when they cannot tolerate touch, such as with EMDR, brainspotting, and CRM. One participant primarily uses touch-based interventions and reported seeing the most change in their clients from facilitating a release of activation and arousal through their bodies with the use of the therapist's hand placement and intentions. Another participant prefers using somatic interventions that do not involve touch from the therapist, as much of his clientele has experienced significant sexual trauma and cannot tolerate that form of connection, at least in the beginning phases of therapy.

### **Client Demographic**

Clients chose to engage in somatic psychotherapy for a variety of reasons. Participants who work with first responders noted that many of them initially come in to address a physical injury or a chronic pain issue. Other reasons given were critical incident processing, panic, anxiety, depression, addiction, PTSD, or complex PTSD.

Providers who have not worked with first responders see a variety of clients, with the majority being adult females, and almost always working with developmental trauma regardless of the presenting issue when they begin therapy. Common symptoms seen were anxiety, depression, addiction, eating disorders, dissociation, hyperarousal, physical injury and chronic

pain. Other diagnoses reported were dissociative identity disorder (DID) and borderline personality disorder (BPD) with one of the participants. Clients with DID showed progress with somatic therapy by integrating their traumatic experiences into the present safely and being able to let their feelings out.

## **Themes**

*Trauma lives in the body.* An overriding theme among participants was the emphasis on trauma living in the body. The impetus for them to acquire certifications in various modalities in somatic-based psychotherapies was grounded in seeing how they could not process trauma effectively through talk therapy, or how one of the participants who began working strictly from a physiological perspective noticed how he could truly help clients diminish chronic pain symptoms through addressing their emotions associated with the pain in their bodies, stating, “people have a strong emotional reaction to chronic pain because they get stuck or trapped on these kinds of reactions to it....when I started asking that question [how does it feel?] people have a lot to say, and so when they started doing that, there were physical and substantive changes in their symptoms”. With regard to using somatic therapy to treat trauma, one participant stated “mind body therapies are first tier intervention...it’s all about the body”.

The nature of somatic psychotherapy and how it is expected to impact clients was discussed slightly differently by each interviewee but pulling up the same concepts of helping the client regulate their autonomic nervous system (ANS), and ‘fight or flight’ response that has become dysregulated. Concepts that emerged frequently were completing defensive responses, releasing activation from the tissues, embodiment, and resourcing. These are all goals of somatic psychotherapy, with each modality having its own pathway on how it is applied with a client. The participant with the most concentrated experience with hands-on somatic psychotherapy in

the form of SE and somatic touch asserts “if you're not addressing the body when you're working with trauma, you're really not doing the client much good.”

***Trauma work is slow.*** A subtheme that arose from the interviews was the importance of going slow with clients who have significant trauma, especially complex or developmental trauma. It is easy for their nervous systems to feel overwhelm and either get too activated or dissociate. All providers in this study mentioned the presence of developmental trauma in almost all of their clients. Many of the regressions or ‘abreactions’ providers reported experiencing with clients were the result of going too fast with integrating traumatic memories into present time.

Another component to the idea of going slow is encouraging clients to make slow movements when they are completing defensive responses or to stay with strong emotions rather than rush them through so that the body and brain can get a sense of completion with a traumatic memory in which they were not able to do what their body needed at the time. One participant who practices sensorimotor psychotherapy gave a specific example involving first responders and their need to override natural instincts when they see horrific things. The participant noted that in a sensory motor session the client is asked to do what they wanted to do at the time they arrived on the scene, such as cover their face with their hands, and asking questions like, “what does it feel like in your hands? Notice your arms starting to move a little bit” This participant touched on the value of pacing, stating, “In slow motion a person might actually be able to do what the body wanted to do at the time but wasn't able to do for whatever reason. So, that can be really powerful.”

***Developmental trauma and first responders.*** As mentioned earlier, developmental trauma was a strong recurring theme with all participants and their clients. One provider reported that often times the physical symptoms are somatizations from trauma that hasn't been

addressed, as it is common in first responder culture to remain stoic towards critical incident. The clinicians interviewed that do work with first responders all mentioned that many of them carry childhood or complex trauma. One participant likened first responders to the military community both in the nature of their duties, but also the observation that a good volume of first responder and military clients treated have complex trauma, and from his perspective actually renders them less resilient to traumatic incidents as an adult, such as with combat or critical emergencies. He discussed how their systems are already set to do more risk-based responses if they have been used to a hyper activation state growing up, yet “resilience is sort of optimized by good childhood developmental experience.” This data presents a dichotomy within the first responder professions, being drawn to the excitement of the job yet many are entering it susceptible to the effects of trauma from their own development.

***Barriers to seeking help.*** Unanimously, all participants commented on the stigma associated with seeking help for trauma and mental illness, especially the first responder community. Five of the six participants commented directly about the stigma associated with first responder culture toward mental health. One participant spoke to the trend of first responders minimizing discomfort and “compressing it to a safe place”, where having that safe place challenged can become too frightening or overwhelming. Participants also remarked that first responders are more comfortable working with people that understand their culture, so often use peers for support or agencies that are partnered fire/police departments.

The participant who had only one session meeting with a first responder as a client also mentioned that there was apprehension from the client in going forward with therapy as they felt processing the trauma may impinge their ability to function, pointing out that fear of losing functionality is another concern or barrier to receiving psychotherapy.

The aforementioned barriers to care are self-driven, however, another barrier from people engaging in somatic psychotherapy at the macro level is the lack of validation from insurance companies to cover the cost due to lack of evidence-based research, which is discussed further later on.

***Outcomes from somatic therapy.*** Looking at the complete group of participants ( $n=6$ ) and their client experience, all reported seeing changes in their clients after receiving somatic psychotherapy. The duration of therapy varied between providers, with the most common suggested length of therapy being ten weeks, or ten sessions. The changes that were reported included improved self-esteem, greater self-efficacy, an increased ability to establish boundaries, an expanded window of tolerance, improved relationships, and a greater ability to be present, or embodied.

With regard to first responders specifically, one participant commented on how well this clientele responds to somatic therapy, as it gives “them something concrete where they can feel the relief within their system when they move in a particular way or...when they allow their bodies to do what couldn't be done in the moment.” This data speaks to how somatic interventions may be helpful with others who readily express themselves through movement over verbalizations.

Other outcomes that were reported and observed were *bracing* or *freeze* responses, where a client tenses up and expresses discomfort, dissociation, or flight responses in which a client does not return to therapy, has physical disconnect from overwhelm, or is hesitant to notice their body and only want to do cognitive work. These responses reported by participants were regarded as a cue to slow things down, one participant adding that “there's not as much of an emphasis on ‘this is what we're expecting the exact outcome to look like’. It's more so trusting



the body to sort of guide where things need to move next,.. and discomfort is a part of the therapeutic process.” As stated previously, slowing down was a recurring theme in the interviews. Many providers emphasized the need to slow the pace, and ‘titrate’ the integration of traumatic memories into present time. When asking clients to complete defensive responses, they are encouraged to slow the entire movement down so that the nervous system is regulated and organized while doing it.

Outcomes specific to certain modalities were reported. One participant discussed how sensorimotor psychotherapy is “enlivening because it relies on clients’ own strengths to recover”. Another provider suggested that somatic experiencing therapy works well with first responders, as its focus is more pathological and scientific, and it is easy for them to identify what is going on in their bodies because they are accustomed to activation in their nervous system from emergencies and critical incidents.

***Markers for progress.*** Participants were asked what they saw as markers for progress with their clients. Those who work with first responders, noted that their progress occurs quickly with somatic therapy, such as with efficient calming of the nervous system, less constriction in their tissues, an improved mood, or less pain in their bodies.

Across all populations of clients, themes for progress that emerged in the interviews were the ability to live in an embodied way (living in the present), increased self-efficacy, exhibiting an expanded window of tolerance, empowerment and a developed capacity to set boundaries, and diminishing of chronic pain symptoms. What came up most often was providers noting how clients began to physically carry themselves more confidently in posture and demeanor. These markers pertained to clients who engaged in somatic therapy on a consistent basis, which as stated before varies among providers, but from the information gathered, completing at least ten

sessions and continuing as needed was the norm. Other markers used were going off of what clients verbalize to the provider but was not regarded as reliable as what is witnessed in their physical bodies.

***Regressions.*** Participants were asked if they saw any negative outcomes, or regressions from using somatic therapies with their clients. The responses varied somewhat, but three main themes emerged: leaving therapy if the processing of trauma goes too fast and creates a sense of overwhelm, or flight response. Others have a tendency to remain in their frontal lobe, using cognitive expressions and resist going into their bodies, which prolongs trauma healing. Dissociation was a third theme listed that providers are vigilant of. The response to these regression by every participant was to really slow everything down. It is a cue that things are going to fast for the client and the process must be slowed down and focus on stabilization.

***Long-term measures.*** In general, participants did not report any measures of follow-up with clients to track long-term outcome from somatic therapy. One of the participants is able to see clients in their day to day occupations as first responders and therefore, has a clearer picture of how they may be functioning after receiving this type of intervention. This provider reported noticing long-term changes in some of his clients, especially if he does not see them again and they are performing their job without difficulty, but he also sees first responders often start feeling better shortly after beginning therapy, and then discontinue on the premise they are fixed, only to return again when symptoms arise. The point being there is no quick fix for long-term developmental trauma.

***Limitations to somatic therapy.*** Some participants offered what they saw as limiting factors with certain modalities of somatic-based therapies. One provider noted that somatic experiencing is more pathological and doesn't look at the whole body, but rather is focused on

the physiological processes of the nervous system. This can be limiting for clients who need for assurance through emotional and cognitive support. Another participant mentioned how sensorimotor psychotherapy can be limiting because, like somatic experiencing and somatic touch, it involves touch from the therapist, and many clients with sexual trauma cannot tolerate that form of connection initially.

Also, looking at potential ripple effects from somatic therapy brought up the topic of how outcomes can limit how providers practice depending on the relational constructs surrounding an individual client. One participant commented about the how the profound changes that can result from somatic therapy, can have profound effects on the relationships the client has with their entire system on a familial, community, and even socio-cultural level (family, friends, society, etc...). The participant provided two examples, one of working with a child who must navigate a strong power dynamic with a parent, and the other working with women prostitutes in India who are surviving in a patriarchal system. By empowering these clients through the use of somatic interventions, there was no safety girdle of human support to champion this change. Rather, they had to return to a system of oppression that could be exacerbated by the clients' shifts in embodied health. The changes in the women in India could bring more abuse to them from their oppressor in response to this power shift, and the changes brought about in the child with the controlling parent could challenge that dynamic or enrage the parent further causing more potential hardship for the child.

In the case of first responders, the concern with this is that changes that occur too rapidly can cause overwhelm and either prompt the to leave therapy, or have difficulty doing their job, which is counterintuitive to primary goal of the somatic approach in calming the nervous system. This is where I heard the term "titrate", or references to moving through trauma processing very

slowly used often during the interviews. It was emphasized how important it is to slowly integrate traumatic memories into the present body.

Therefore, knowing not just the client but their entire system and cultural setting is important to be able to assess for negative repercussions and perhaps adjust how you work with them. “As with any system, it's like if anything changes, everything has to change or the system is going to reorganize”. This topic overlaps into the last them in my study of looking at future direction and research for somatic-based therapies.

***Future research and direction of somatic therapy.*** All participants were asked what areas of somatic psychotherapy they would like to see researched and future directions of this form of practice. Four of the six participants discussed that cognitive, quantifiable models get researched heavily, such as cognitive behavioral therapy (CBT) or prolonged exposure therapy (PE) as they are more structured and have more definitive properties. Somatic psychotherapy, however, is anecdotal in nature, has qualitative properties, and is rarely quantifiable. Therefore, even randomized controlled studies are not necessarily a sound research design model, as clients are going to be in completely different places in their therapeutic journey. One clinician commented how this directly affects mental health coverage for clients, as “you are never going to have standardized approach in somatic work, which makes it difficult to get insurance to approve it.” He discussed his opinion that the advancement of neuroscience and brain imaging is the best source of an efficacy model for future of somatic work, as it holds results at face value in a picture. Another participant commented that more embodied research, with long-term efficacy studies on bodywork would be good for supporting the results already seen in practice.

Looking at this from a systems perspective, one participant who is very familiar with first responder culture remarked that there is a need for a top-down approach with bringing awareness

and acceptance to this community, meaning that if the chief of the fire or police department, for example, accepts and promotes contemporary practices of treating trauma and symptoms associated with it, then it will more likely trickle down and normalize into the crux of the agencies themselves. Another participant supported this view, in the sense that most of the first responders he works with are referred to him from a collaborative program established between the fire department and his agency. Clients are reportedly more willing to go there because of the established affiliation sought after from higher command.

Another subtheme that emerged was the call for improved training from institutions on how therapists can be in their own bodies, understanding what it means to be embodied themselves so they can better attune to their clients, which is critical in trauma work. Currently, many graduate programs focus on quantifiable therapy models which does not serve the client body as best as it could. Along with this perspective, participants commented on the need to consider how this therapy acts on a client's entire system and environment as clinicians in this field.

The overriding message from the data collected regarding the future of mind-body interventions is that currently, cognitive-based research is what primarily is getting funded and published, but that is not where the most effective trauma work is done, and participants have witnessed impressive results from somatic-based psychotherapy . Therefore, finding meaningful ways to research body-based interventions in order to legitimize this form of therapy to insurance companies, create greater awareness in the mental health community, and reach more clients struggling with trauma is needed.

## Discussion

The purpose of this study was to explore providers' views on somatic-based interventions to address responses to trauma and stress in the first responder community, as well as to cast light on a less researched avenue of mental health that is gaining attrition by therapists to integrate with current psychotherapeutic treatments. The somatic approaches discussed in this paper are rooted in the physiology of the traumatic experience, and less cognitive in practice, which may be useful in treating first responders given their stoic culture and reluctance to seek help with mental health professionals. This section will compare the results of the study with the literature, limitations of somatic-based interventions, and implications for future research.

**Trauma exists in the body.** One of the recurring themes in this study is that trauma lives in the body. Somatic interventions for treating trauma adopts a “bottom-up” processing approach, focusing on the stabilizing activation in the body and regulating the nervous system before moving into cognitive expression (Van der Kolk, 2014; Levine, 2010). One participant noted that their efforts to use cognitive therapies to address trauma clients resulted in less change or diminishing of symptoms until they began utilizing body-based interventions. This finding is congruent with both Van der Kolk (2014) and Levine (2010), who thoroughly regulation of the nervous system, building safety with a client and orienting them to the present before moving into the cognitive processing of trauma.

**Trauma work is slow.** Providers emphasized the importance of moving through the trauma treatment process slow enough to prevent overwhelm and dissociation. This translates in the literature by Levine (2010) to the concept of *titration*, in which he discusses accessing a client's highly energetic states in slow, small amounts is critical to avoid re-traumatization. Van der Kolk (2014) regards dissociation as “the essence of trauma”, in that overwhelming

experiences are often fragmented and reexperienced when something triggers them, but the therapist can help the client learn the origins of the emotions and sensations they relive through mindful awareness (p.66).

Participants also discussed having clients make slow movements in response to an impulse or urge to do something they were previously inhibited from doing. One participant noted how having the client move slowly allows them to feel what is happening and unbind trapped traumatic states in the body. These findings are consistent with Levine (2010) who discusses how defensive and protective responses are encouraged in a gradual and slow manner, along with “discharging bound energy through shaking, trembling or breathing changes to reduce the habituated hyperarousal in them” (Levine, 2010, p.82).

**Developmental trauma and first responders.** The terms developmental trauma, complex trauma, childhood trauma, and complex PTSD were brought up frequently and interchangeably during the interviews. Participants reported the majority of their clients have significant trauma histories, and with first responders this could be both the effects of chronic occupational trauma as well as developmental trauma. This data is supported by a study which found one fifth of responders from Hurricane Katrina had experienced physical victimization before the age of 18 which, could be a risk factor for mental health problems in fire and police departments (Komarovskaya et al., 2014). Another study focused on childhood trauma in combat veterans that showed a strong association with military members who reported childhood trauma exposures and symptoms of PTSD, depression and suicidal ideation (Youssef et al., 2014). While this research focused military-connected individuals, it could be relevant to this study given the comparisons made between military and first responder occupations (Freeman-Clevenger, 2015).

**Outcomes from somatic psychotherapy.** Qualitative data collected from participants in this study is consistent with existing literature on somatic psychotherapy as an effective treatment for trauma (Brom et al., 2017; Parker et al., 2008; Leitch, 2007). Participants all reported seeing positive results from their clients after engaging in somatic therapy. The participants currently working or have worked with first responders attested to the effectiveness of the therapy provided the client remained in therapy beyond the initial intake. This is evidenced by Leitch's (2007) research that studied the effects of somatic experiencing in the form of "trauma first-aid" as an early intervention model for tsunami survivors. The study found that, after one or two sessions, more than 65% of survivors in the study had partial or complete removal of symptoms (Leitch, 2007). Parker (2008) held a similar study that provided 75 minutes of somatic therapy and self-regulation training and saw significant relief of trauma symptoms in participants. It is important to note, that both studies by Leitch and Parker use brief interventions, with only one or two sessions and found improvements in symptoms. Further evidence of the effectiveness of somatic therapy was shown by the Brom et al. (2017) study. The authors used a randomized controlled study on somatic experiencing, and found that participants who began treatment with PTSD diagnoses, saw up to a 60% reduction in symptoms from the control group, and 44% had a reversal of a PTSD diagnosis (Brom et al, 2017)

The findings regarding the significant reduction in symptoms after a brief intervention is highly relevant to the first responder population for two main reasons. For one, due to the culture of minimizing problems and mental health stigma in many first responder agencies (Royle et al., 2009), brief interventions that can accomplish symptom relief and provide self-regulation tools are more readily accepted, according to one of the participants interviewed in this study. While the following was not found in reviewed literature, it was noted by a participant that first



responders, and especially firefighters are already adept at recognizing activation in their bodies, and therefore respond well to body-based interventions such as somatic experiencing or sensorimotor psychotherapy. The providers described the effect of somatic psychotherapy serving as a meaningful and profound among their clients.

**Barriers to seeking help.** Stigma is a dominant theme in both the literature and this field study with regard to working with first responders. The providers who were interviewed work with a myriad of populations, however, when they were speaking about their work with first responders the issue of stigma was brought up by each participant who has experience with this community. Stigma was addressed by all of the literature reviewed pertaining to first responders, both as a barrier for individuals to seek help, and as a cultural attitude towards mental health across emergency service agencies (Sharp et al., 2015; Royle et al., 2009; Kronenberg et al., 2008). The subthemes that were brought up by participants that are embedded in the concept of stigma were fear of losing the ability to perform job duties after engaging in therapy, fear of facing trauma in a professional setting, minimizing symptoms or discontinuing care after initial signs of relief, and needing a sense of agency approval *towards* referred providers and identifiability *from* the referred provider, as in having similar background or intimate knowledge of their occupational culture. These ideas are strongly supported by the literature. Kronenberg et al. (2008) supports this idea, noting that first responders are a close community, are often hesitant to seek mental health services due to lack of trust in the capacity for people to understand them or fear of a breach in confidentiality. A study on the dynamics of stigma for first responders found that employees were viewed more negatively after suffering a psychiatric condition than a physical injury, as well as employees feeling stigmatized and struggling with self-image and their need for help (Royle et al., 2009). This finding reinforces the negative

attitudes surrounding mental health and self-advocacy for treatment. The literature also emphasizes fear of job insecurity among first responders who seek help for mental health concerns (Fox et al., 2012; Brown, 2017; Antonellis, 2005). These inform how providers can empathize with the needs of this population and learn how to align with them or properly refer mental health services services.

**Limitations.** The qualitative interviews asked participants to comment on what they saw as limitations to somatic-based therapies. The main critique by those who practice the somatic experiencing method is that it is grounded firmly in the physiology of trauma and does not necessarily foster the whole person in an embodied way, as it does not integrate the cognitive layers that sensorimotor psychotherapy does (Ogden, 2000). The counter argument for those who work directly with first responders is that this particular modality may work well for them, especially with acute trauma, as it does not require them to talk about their emotions verbally and can work quickly at releasing energy held in the body from the traumatic event.

Another limiting factor discussed by participants was that certain forms of somatic psychotherapy were less appropriate than others. For example, somatic experiencing and sensorimotor psychotherapy were reported as difficult techniques to employ with clients who had a history of sexual trauma and do not tolerate touch well, at least in the initial stages of treatment. In these cases, techniques such as comprehensive resource modeling, EMDR, and hypnosis were found to be more helpful.

**Implications for future research.** The results of this study showed an overriding supportive response by the providers interviewed towards the use of somatic-based therapies for the treatment of PTSD and other trauma related disorders. A call for further research is needed involving larger sample sizes and ways to affirmatively measure somatic interventions that have

qualitative properties. Participants remarked on the need to legitimize somatic psychotherapy in the mental health field as an effective trauma treatment. However, because somatic psychotherapy does not fit the conventional quantitative research model very well, looking at new ways to measure this are likely necessary. This idea is supported by Brom (2017), noting their limitations in the randomized controlled outcome study utilizing somatic experiencing to treat PTSD, was not only a small sample of participants but also that due to dynamic nature of this modality with lack of structure it is difficult to provide a comparison to other modalities. Another challenge with the current lack of research reported from the interviews in this study was that they are often unable to get insurance companies to support body-based therapies. Having more reliable studies available will inform insurance companies of its merit as useful therapy, and more clients will have access to receiving somatic psychotherapy. Studies that incorporate pre and post-treatment brain scans was brought up by one of the providers as likely one of the most reliable tools to measure effectiveness of somatic psychotherapies (Van der Kolk, 2014).

## **Conclusion**

The first responder community is built upon individuals who are willing to serve their municipality, state or country, and even risk their lives to save others, a responsibility which has led to devastating rates of depression, PTSD, substance abuse, and suicide (Donnelly, 2012; Newland et al, 2015). At present, evidence-based treatments such as prolonged exposure (PE) and cognitive processing therapy (CPT) have shown positive results with criticism as well regarding substantial drop out rates (Najavits, 2015). Somatic psychotherapy is another treatment avenue that can be explored for this population. The literature reviewed and qualitative data gathered from participants in this study has illustrated the potential of somatic psychotherapy to treat trauma related disorders, including the first responder community. While there was little, if any, literature published on the topic of somatic interventions for first responders, participants from this study reported their somatic-based work with first responders as beneficial. Further research is needed to support these claims, yet the findings suggest that employing the body as an entry point for healing is appropriate for treating psychological trauma.

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## **Appendix A**

### **Consent Form**

#### **[1170492-1] *The Role of Somatic Therapy in Treating First Responders with Posttraumatic Stress Disorder and Other Occupational Stress Reactions***

You are invited to participate in a research study to examine the perspectives and experiences of clinicians who practice somatic therapy and work with first responders. The study also seeks to gather your perception on the outcome of somatic-based therapeutic interventions for first responders (police officers, firefighters, paramedics, rescue workers, military medics). The current literature has found that first responders are more likely to struggle with posttraumatic stress disorder and other mental illnesses such as anxiety, depression and substance abuse often associated with occupational stress. You were selected as a possible participant because you were referred to me from another mental health professional familiar with your work. You are eligible to participate in this study because you are a licensed mental health provider and currently practice a form of somatic therapy with your clients. The following information is provided in order to help you make an informed decision whether or not you would like to participate. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Maggie Graham, the primary investigator at the School of Social Work and University of St Thomas. This study was approved by the Institutional Review Board at the University of St. Thomas.

### **Background Information**

The purpose of this study is to explore the outcomes of somatic-based interventions for addressing PTSD and other mental illness in first responders. I wanted to focus on the first responder community as I see a great need to explore ways to address the high rates of mental illness and stigma associated with accepting help in this population, as provided in previous literature. There is not yet a large body of research on somatic therapy, and is almost nonexistent with regard to somatic therapy with first responders. From the literature reviewed, the few studies on somatic therapy report promising results given further research as a sound intervention for trauma-related illnesses. My hope is to contribute to a relatively thin body of knowledge to offer new information regarding mental health and first responder professions utilizing somatic modalities.

## **Procedures**

If you agree to participate in this study, I will ask you to do the following things: Agree to an hour-long interview that will be audio recorded for collecting accurate data, to be held at the location and time of your preference and comfort. There is up to ten participants in this study. Participation is a single event commitment for the duration of the interview only. Follow-up will not be required unless requested by you, the participant.

## **Risks and Benefits of Being in the Study**

You will be asked about your professional views on how somatic-based therapy has impacted the clients you have worked with, in a general sense. If you are uncomfortable responding to any of the questions in this study, you are free to decline the question or opt-out of the interview at any point with no penalty.

There are no direct benefits for participating in this study.

## **Incentives**

You will receive a \$10 Target gift card for your involvement, which will be given at the time of the scheduled interview. This compensation will be handed out regardless of whether or not you withdraw from the study.

## **Privacy**

Your privacy will be protected while you participate in this study. You have control of the location, timing, and circumstances of sharing your information.

## **Confidentiality**

The records of this study will be kept confidential. Any published research or information will not include information that will make it possible to identify you. The types of records I will create include a general consent form, laptop for keeping electronic notes, a notebook for keeping paper notes, and an audio recorder for taping the interview. All forms of data, including electronic and paper notes, audio recordings, transcriptions, and consent forms will be secured in a locked file cabinet in my home. Electronic notes kept on a laptop will be password protected, as well as the audio recording software being used. While traveling to and from interviews, all study equipment and materials used for collecting data will be locked in the trunk of my car to maintain confidentiality. All signed consent forms will be kept for a minimum of three years upon completion of the study. I will destroy all forms of data collected three years from completion of this study, in the spring of 2021. Institutional Review Board officials at the University of St. Thomas reserve the right to inspect all research records to ensure compliance.

## **Voluntary Nature of the Study**

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with myself or the University of St. Thomas. There are no penalties or consequences if you choose not to participate. If you decide to participate, you are free to withdraw at any time without penalty or loss of any benefits to which you are otherwise entitled. Should you decide to withdraw, data collected about you will only be used if you consent. You can withdraw by simply contacting myself, the principal investigator, via phone or email (provided below). You are also free to skip any questions I may ask.

## **Contacts and Questions**

My name is Maggie Graham. You may ask any questions you have now and any time during or after the research procedures. If you have questions later, you may contact me at (571)839-5901, or by email: [grah8568@stthomas.edu](mailto:grah8568@stthomas.edu). You may also contact the University of St. Thomas Institutional Review Board at 651-962-6035 or [muen0526@stthomas.edu](mailto:muen0526@stthomas.edu) with any questions or concerns.

## **Statement of Consent**

I have had a conversation with the researcher about this study and have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I am at least 18 years of age. I give permission to be audio recorded during this study.

**You will be given a copy of this form to keep for your records.**

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**Signature of Study Participant**

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**Date**

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**Print Name of Study Participant**

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**Signature of Researcher**

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**Date**

## **Appendix B**

### **Interview Questions for Mental Health Professionals Practicing Somatic-based Interventions for First Responders with Posttraumatic Stress Disorder and other Mental Illnesses**

1. Can you tell me your professional title, licenses you hold, and modes of somatic psychotherapy that you practice?
2. How long have you been practicing this form(s) of somatic therapy?
3. Why did you choose to pursue this modality of treatment?
4. Please explain the nature of this modality, and how it is expected to impact clients.
5. Please provide for me a general description or demographic of the clients that you see, and whether or not you have had any first responders as clients?
6. If you have not worked with first responders, have you worked with any clients that hold occupations considered highly stressful or prone to traumatic/or critical stress?
7. If you have worked with first responders, can you provide what types of roles they hold (law enforcement, firefighters, paramedic, etc.)? Do you notice similarities or differences between specific occupations in how they respond to chronic stress?
8. What is your experience working with individuals with PTSD or significant trauma?
9. If you have worked with more than a few individuals who are first responders, have you seen any commonalities in outcomes after receiving somatic therapy?
10. If you have worked with first responders, what are some of the barriers they have had in receiving mental services?

11. If you have not worked with first responders, can you tell me more about how you have seen somatic-based therapy impact the clients that you do work with?
12. What do you use as markers for progress with clients in relation to somatic therapy?
13. Have you seen regression in clients who engage in somatic therapy? How so?
14. What are your follow-up procedures with your clients?
15. Are there limiting factors to this form of therapy?
16. Do you have ideas on gaps in research that could be filled in with regard to somatic psychotherapy?

## **Appendix C**

### **Recruitment Script**

Hello Mr./Miss/Mrs. XXX, My name is Maggie Graham, and I am the principle investigator of a research study I am completing as a requirement towards fulfillment of a Masters of Social Work degree from the University of St. Thomas. I am contacting you today to invite you to participate in my study, which looks at the role of somatic therapy in treating first responders with posttraumatic stress disorder and other occupational stress reactions such as depression, anxiety or substance abuse. I am curious to learn what outcomes mental health professionals who utilize somatic-based modalities to treat such illnesses have seen in their clients.

My intention for conducting my study is to interview mental health providers about their experiences using somatic psychotherapy, and the type of results they have seen. I have reached out to you as a potential participant, as it is my understanding you practice (insert modality) and may also have experience working with individuals who are first responders (police officers, firefighters, paramedics, rescue workers, military medics). The interview will last no longer than one hour in duration, will be held at a location of strict privacy and convenience for the participant, and they will receive a \$10 Target gift card for offering their time. A list of questions will be sent out to participants prior to the interview to have a grasp of the material. Participants may opt-out of any questions they do not feel comfortable responding to. If you are interested in participating in this study, you may contact myself via email at [grah8568@stthomas.edu](mailto:grah8568@stthomas.edu) or phone (XXX)XXX-XXXX. Thank you.